AMENDMENTS TO THE CLAIMS

1. (currently amended) A process for polymerizing in a first polymerization at least one olefinic monomer selected from ethylene, propylene and 1-butene in a first loop reactor in the presence of a polymerization catalyst at from 20 to 150°C, but below the melting point of ~~the~~a polymer to be formed, and a pressure of from ~~5 to 100~~43 to 80 bar, where the polymer formed is present in a suspension in a liquid or supercritical suspension medium and ~~this~~wherein the suspension is circulated by means of an axial pump, wherein the polymerization is carried out at an average solids concentration in the reactor of more than 53% by weight, based on the total mass of the contents of the reactor, in the case of continuous product discharge, and at an average solids concentration in the reactor of more than 45% by weight, based on the total mass of the contents of the reactor, in the case of discontinuous product discharge, and wherein the polymerization is carried out at an ethylene concentration of at least 10 mol%, based on the suspension medium.

2. (currently amended) ~~A~~The polymerization process as claimed in claim 1, wherein the loop reactor comprises a cyclic reactor tube ~~whose~~comprising a diameter ~~varies~~varying by at least 10%, based on ~~the~~a predominant reactor tube diameter, and in which there is at least one widening and narrowing in a region other than that of the axial pump.

3. (currently amended) ~~A~~The process as claimed in claim 1 ~~or 2~~, wherein there is ~~an additional~~a widening and narrowing of the reactor tube in the region of the axial pump.

4. (cancelled).

5. (currently amended) ~~A~~The process as claimed in ~~any of the preceding claims~~claim 1, wherein the at least one olefinic monomer comprises ethylene ~~is used~~ as a first monomer and at least one α-olefin having from 3 to 8 carbon atoms is ~~used as~~ a comonomer.

6. (currently amended) ~~A~~The process as claimed in ~~any of the preceding claims~~claim 1, wherein the at least one olefinic monomer is fed in at at least 2 points along the reactor tube.

7. (currently amended) ~~A~~The process as claimed in ~~any of the preceding claims~~claim 1, wherein the polymer formed is discharged continuously from the reactor.

8. (currently amended) ~~A~~The process for polymerizing at least one olefinic monomer in ~~a~~the first loop reactor as claimed in ~~any of the preceding claims~~claim 1, wherein the first polymerization in ~~this~~the first loop reactor is preceded or followed by at least one further polymerization step in a second loop reactor or a gas-phase reactor.